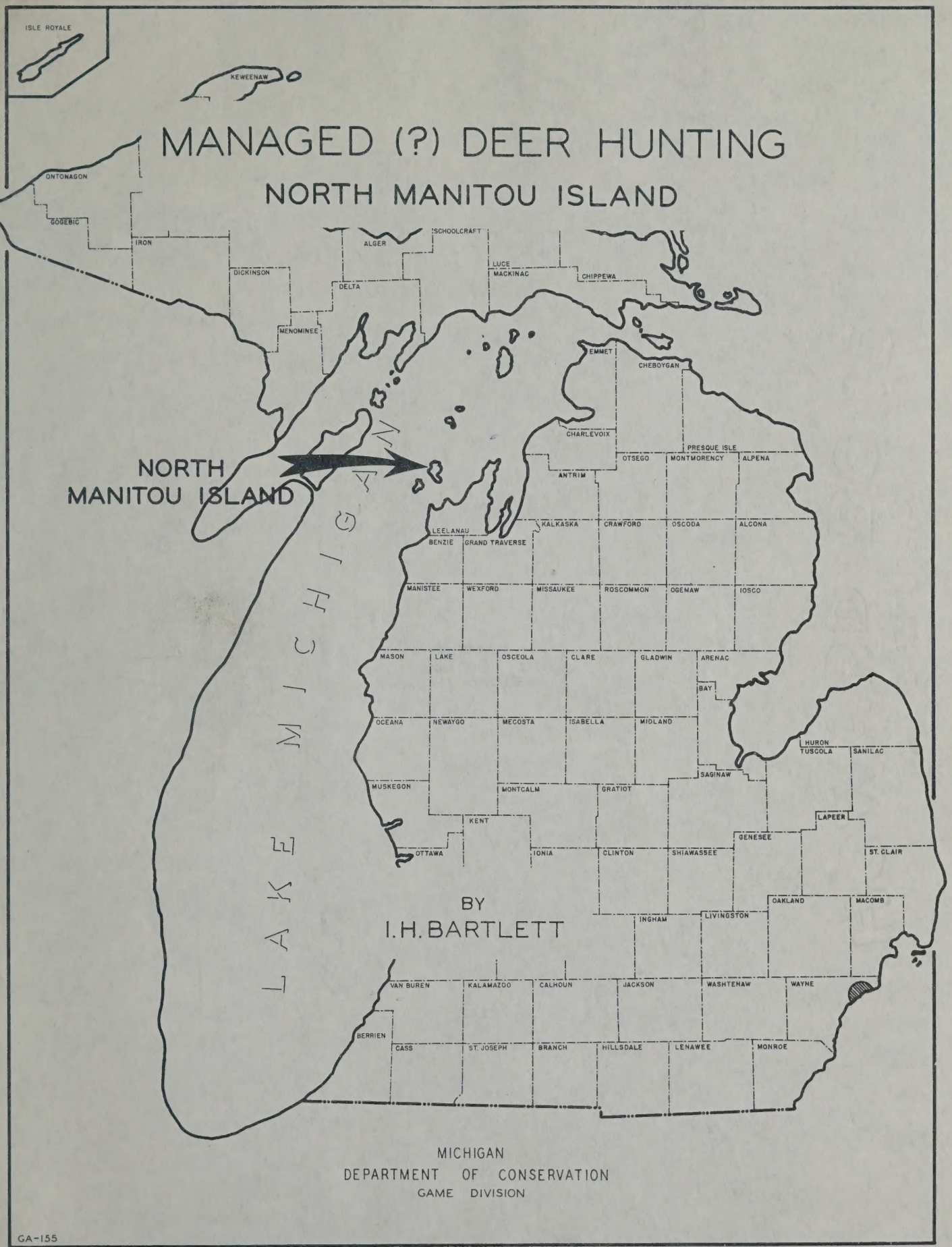
8095 Deer 1949 GLEN C. SANDERSON



MICHIGAN
DEPARTMENT OF CONSERVATION
GAME DIVISION

GA-155

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MANAGED (?) DEER HUNTING - NORTH MANITOU ISLAND

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Michigan Department of Conservation

North Manitou Island, consisting of 14,000 acres (22 square miles), is located in northern Lake Michigan. It is seven miles long, north to south, and four miles wide. Topography varies from gently rolling flats and old beaches, to precipitous hills, dunes, and shore bluffs.

Original forest cover consisted mainly of northern hardwoods, with hemlock and a few small swamp conifer areas. Limited areas of swamp hardwoods with a light mixture of swamp conifers appeared at each end of the larger inland lake. Old time island residents report that the original undergrowth consisted of extensive dense stands of ground hemlock (Taxus canadensis) from waist to shoulder high, scattered clumps of ground juniper (Juniperus communis), dense thickets of the shrubby maples, dogwoods, alder, viburnums, etc., and scattered patches of hardwood reproduction in the openings.

Logging started more than 100 years ago for fuel for early steamers and continued intermittently until the last large stands were exhausted in 1925. There have been no major forest fires here and the second growth hardwoods which now nearly cover the island are in excellent condition, ranging from 20 to 100 years in age. The few swamp conifer areas are now rather lightly stocked and are intermixed with swamp hardwoods and alder. A 500-acre oak-pine "flat" along the southeastern shore is the only other major timber type now present. The only remaining undergrowth, of consequence to deer, is heavily browsed hardwood reproduction and scattered clumps of ground juniper.

There are 40 acres of active cherry orchards on the island, a recently abandoned 160-acre apple orchard and perhaps a dozen old abandoned farms now grown up to wild grasses. The village supports a permanent population of three to five families, all employed by the owner of the island. There are no other residents.

The Island is owned almost entirely by Mr. W. R. Angell who is the only remaining member of the Manitou Island Association. There were no deer on the island previous to 1925. In 1925 the association purchased and released on the island two bucks and five does. It is

not known whether these does dropped fawns that first year. Twelve years later, in 1937, after a steady increase in deer population, a browse line began to develop and scattered occasional dead fawns were being found in the spring. In that year the Association obtained a breeder's license to give them the legal right to manage the deer herd, and in the fall of 1937 began an annual harvest. At the same time they began supplemental feeding - - mainly oats fed in cherry lugs nailed to trees.

In October, 1937, Mr. Ruhl visited the island and reported the yards well browsed but not seriously; ground hemlock heavily browsed but not killed, and hardwood and other deciduous plants lightly browsed. He estimated the herd at 400 to 600 animals and thought this to be about the sustained carrying capacity of the island. That year 18 deer were shot, including three females.

No Departmental observations were made in 1938, but the Association reported that about 2,000 bushels of oats were fed in the winter of 1937-38 as supplemental feed and that the 1938 fall hunt had yielded 41 deer, of which 14 were females.

I first visited the island in July, 1939. There was a strong contrast with what Mr. Ruhl had found two years previously. The ground hemlock had almost disappeared, the cedar browse available to deer was nearly gone, and heavy browsing was evident on balsam and much of the deciduous growth. From these indications it was evident that the island was already overpopulated and the herd increasing rapidly. It was recommended that the association attempt to take as many as 250 deer from the island to reduce the heavy browsing and to keep the herd under control.

Mr. Angell was reluctant to believe that there were as many deer as we thought were present. We had no definite proof to offer - - only our belief based on past experience and what had happened elsewhere. This was not enough to convince him that we knew what we were talking about. In 1939, the hunting take was 45, including five does. The following year many more deer were observed by island residents. Feeling that the herd was holding its own or increasing, the Association, in 1940, increased the kill to 95 animals, including 32 females.

During the years following, browsing became extreme, artificial feed disappeared from the feeding boxes with alarming speed and the number of deer seen on the fields pyramided. Consequently the kill was increased progressively to a peak of 302 in 1944. Fewer deer were observed during the summer following this seemingly heavy kill and Mr. Angell believed his herd had been ruined, in spite of our assurances to the contrary. As a consequence, the kill in 1945 was

reduced to a total of 50 deer, 39 bucks and 11 does.

It was our contention that possibly now the herd was under control and should be kept there by a take of 200 to 300 or even 400 deer annually. This would relieve the pressure on the decreasing browse supplies and allow some regeneration. Later the herd could be allowed to increase as food conditions improved.

Until 1944, winter losses had been light with 20 to 30 starved fawns found during cursory searches of the main yarding areas each spring. If the kill of 302 deer in 1944 had brought the herd under control, the kill of 50 in 1945 allowed it to start its upward spiral again. Deer were again seen in "pleasing" numbers during 1946 and the kill was cautiously and fearfully increased by the Association to 138 in the fall of 1946. This hesitancy to take the recommended kill of 200 to 300 was nearly fatal. In the spring of 1947, during admittedly inadequate searches, 139 starved fawns and 10 starved adult does were actually found. It was estimated at the time that the total starvation loss on the Island that winter was between 300 and 500 animals in spite of 2,700 bushels of oats put out as supplemental feed.

In the fall of 1947, the kill was increased to 202 deer. Mr. Angell was afraid starvation had depleted the herd and was reluctant to remove more by hunting. The following spring, 47 dead deer, mostly starved fawns, were found. The kill in 1948 was 120 and the loss in the spring of 1949, following a mild winter, only 25. The recent light starvation losses in spite of a lowered kill may be the result of a lowered reproductive rate similar to that reported by O'Roke & Hammerstrom (1) following the peak in the deer herd on the George Reserve.

This brings the records up to date. The total intentional kill on North Manitou Island in the twelve years, 1937 to 1948, inclusive, has been 917 adult bucks, 508 adult does, 100 male fawns, and 93 female fawns, a total of 1618 deer, or an average harvest of 6.13 deer per square mile per year. Of these, more than 37 per cent were females.

In addition to the planned harvest, 332 deer have been found dead from wounds, old age, "natural causes", and starvation. These were found on very limited searches and the actual loss is thought to be twice or three times that number. But, using known figures of removals from the herd by all factors the total is 1950 deer, an average of 7.4 deer per square mile per year, of which 39 per cent have been females.

(1) Productivity and Yield of the George Reserve Deer Herd -
-O'Roke & Hammerstrom, Journal of Wildlife Management,
Vol. 12, No. 1, January, 1948.

In spite of repeated recommendations and warnings, this herd was allowed to get out of control. As a result, (1) damage to the range has occurred so as to reduce the carrying capacity an estimated 50 per cent below what it could have been, (2) an estimated 50 per cent of the possible deer crop has been wasted, and (3) both herd and range are in such poor shape today that it would take years of the best known management practices to restore optimum conditions.

While these data are admittedly incomplete so far as deer herd management is concerned, they are sufficient to indicate that here is another example of the high reproductive capacity of a deer herd under good conditions. It also is an excellent example of the reluctance of the public to accept recognized game management practices and of the waste resulting therefrom.

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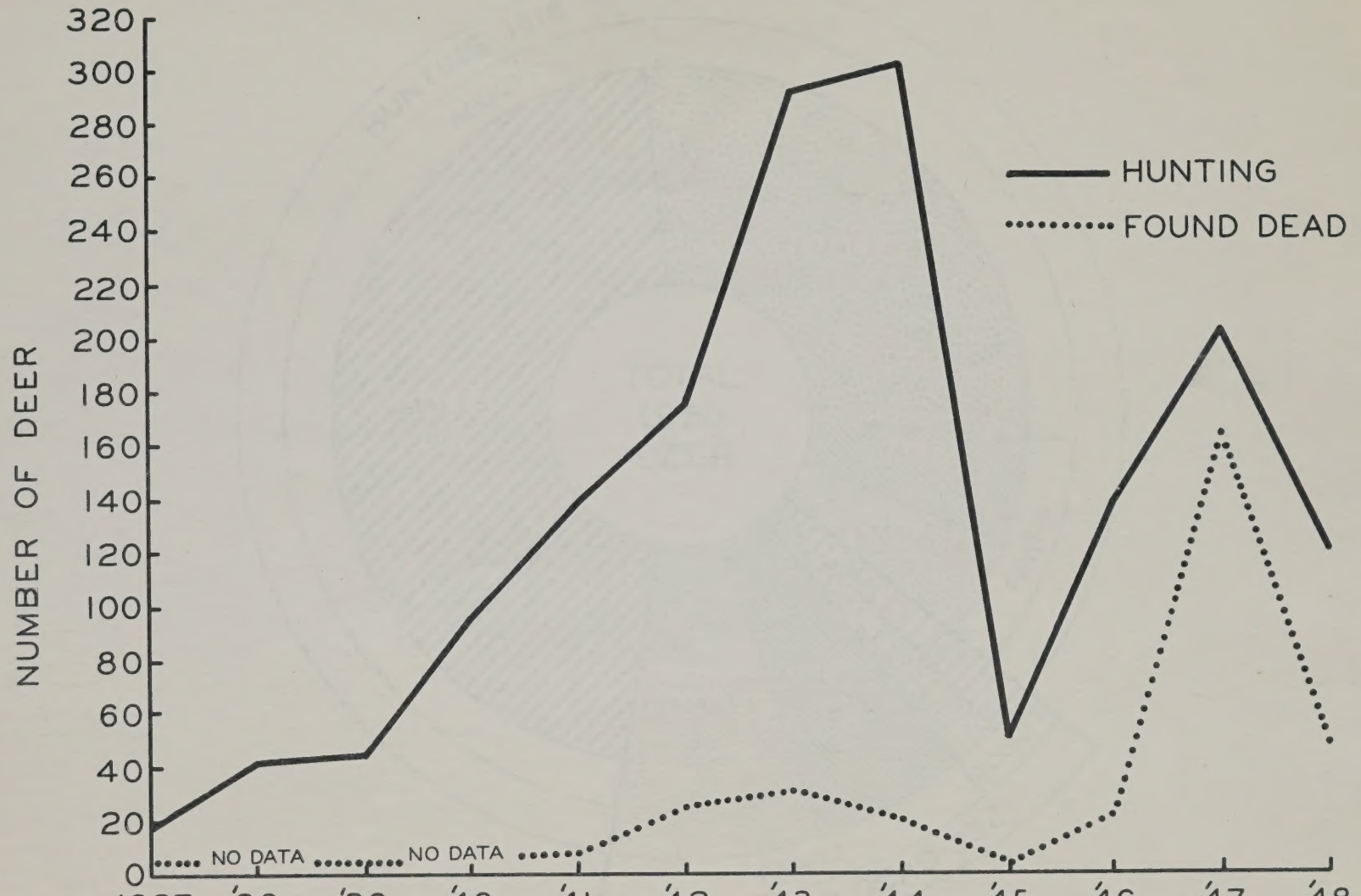
NORTH MANITOU ISLAND

KNOWN DEER HERD LOSSES



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LOT 11-49

NORTH MANITOU ISLAND
KNOWN DEER HEAD LOSSES
FOUND DEAD
HUNTING
NUMBER OF DEER
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
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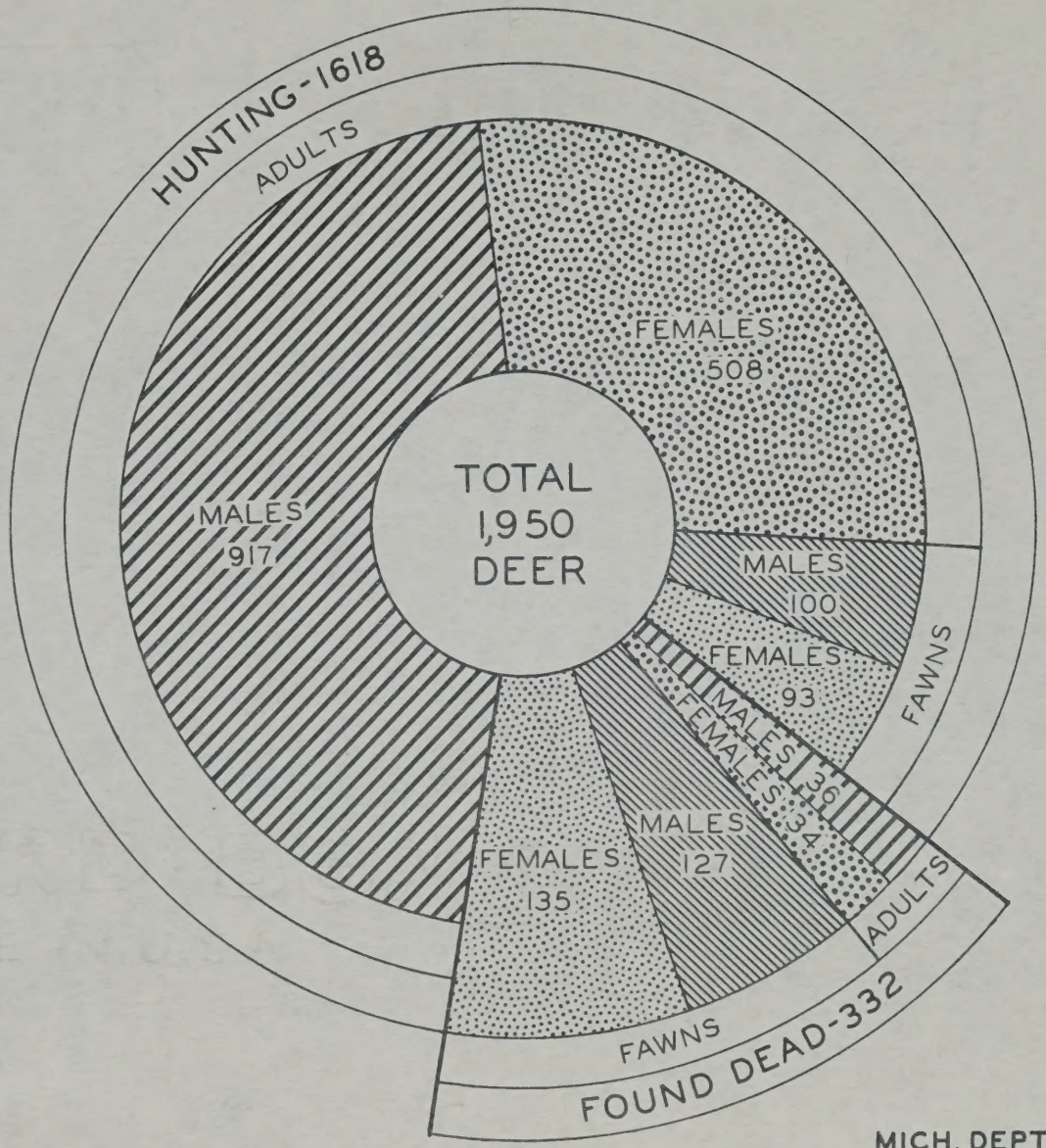
NORTH MANITOU ISLAND
TOTAL KNOWN DEER HERD LOSSES
(HUNTING AND FOUND DEAD)
1937–1948 INC.



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